

guided tour to ecoinvent functionalities

Presentation

24 September 2018

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Data Analyst

ecoinvent

Content of this presentation

Guided tour to ecoinvent functionalities

- **Webpage**: search & use of the materials provided



ecoinvent version 3.5

With Version 3.5 over 2'000 datasets on aquaculture and fish capture, waste treatment, aluminium, hard coal, pulp and containerboard were added and updated. Hundreds of regional and global supply chains were revised.

[→ Learn more about ecoinvent 3.5](#)

Latest News August 23, 2018: ecoinvent version 3.5 is available!

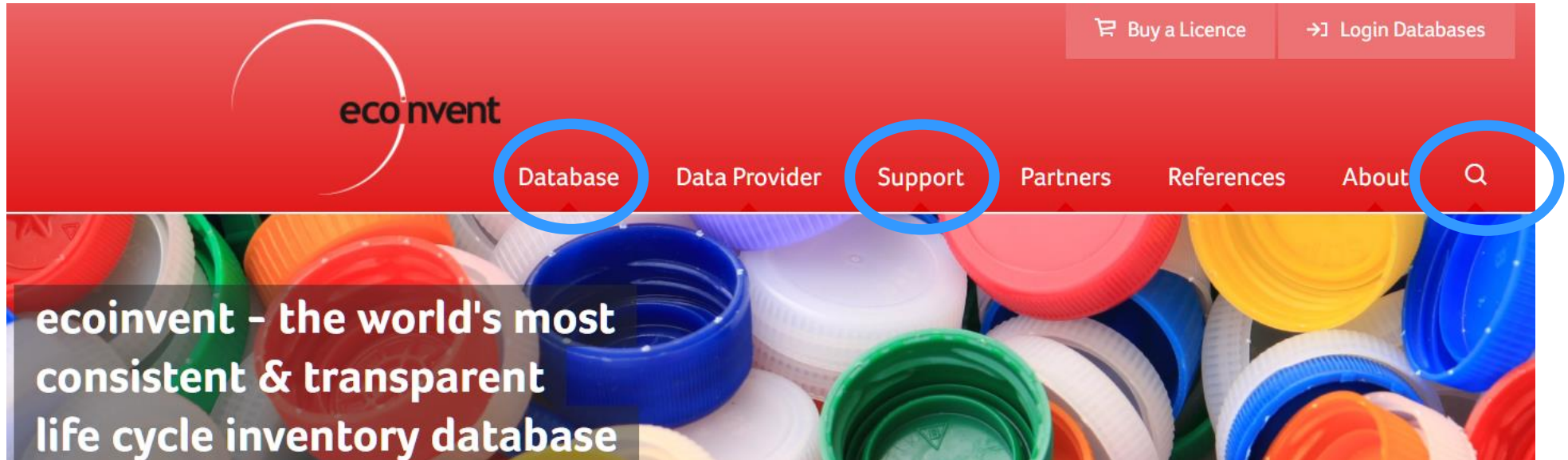
We are happy to announce the release of the fifth update of ecoinvent version 3.
[Read more](#) → about version 3.5, → [log in](#) or → [register](#) to access the new data.

- **ecoQuery**: functionalities and navigation



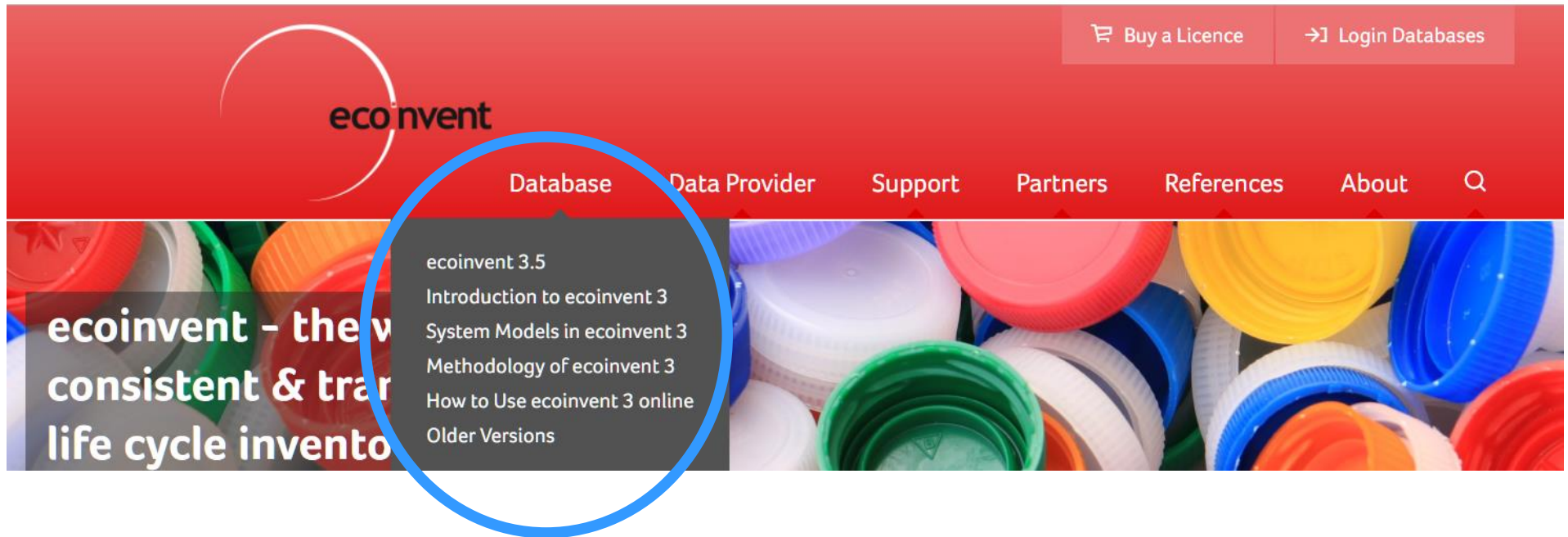
Enhance the use of our webpage!

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‘Database’ section

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- ‘Database’ section: to find out about v3, the latest and all previous releases, the methodology and the system models
- ‘Support’ section
- ‘Search’ function

‘Database’ section

→ All relevant files for ecoinvent 3.5

New Data and Features

The fifth update of ecoinvent version 3 includes over two thousand new and updated datasets related to aquaculture and fish capture, waste treatment, hard coal and aluminium supply, pulp and containerboard production. Moreover, the overall representation of supply chains was improved.

→ [New Data & Features in ecoinvent 3.5](#)

Report of Changes

- [PDF Change Report](#)
- [Correspondence File](#)
- [XLS Change Report Annex](#)

→ [Report of Changes | ecoinvent 3.5](#)

Known Issues

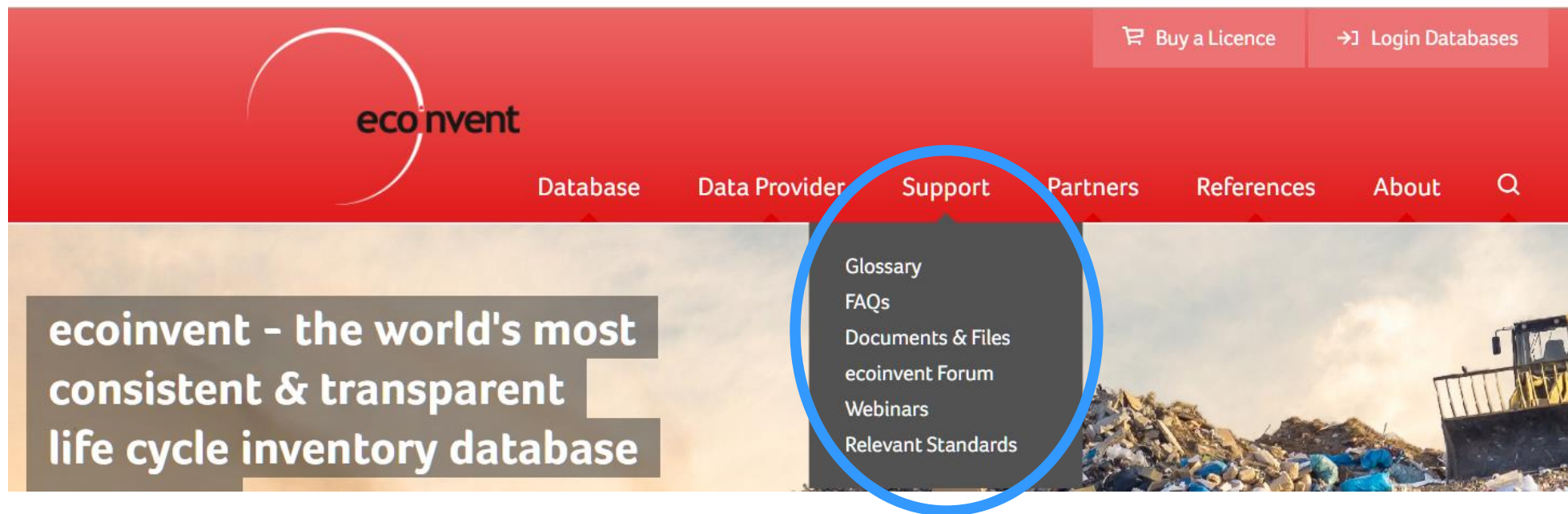
This section lists all known data errors in ecoinvent version 3.5. We are working hard on eliminating these for upcoming update to the database.

We document these issues openly to warn our users about these problems and to help them understand the errors so they may work around them while we work on the update and error fix.

→ [Known Data Issues | ecoinvent 3.5](#)

‘Support’ section

ecoinvent



- ‘Database’ section
- ‘Support’ section: get your questions answered effectively
- ‘Search’ function

FAQs

The FAQs w
questions a
terms you a
Glossary.

Most requested FAQs

Documents & Files

This page offers yo
documents and fil
and where to find

Information on ecoinvent 3

Webinars & Recordings

watch ecoinvent w
structure of the da

Glossary

Forum for ecoinvent Version 3

Registration

Join the forum a
ecoinvent versio
answer question

→ To start discussing reg

Support Mail

For data related, technical questions:
support@ecoinvent.org

Most requested

- Why do I need
- What can I do
- How do I cite
- What is the dif
- What is the str
- Did the charac
- ecoinvent data
- Why is the LCA


First Time Us


Trust in Transparency!


Information on ecoin

 **Report of Changes**
Document describing the cha

 **Correspondence Fil**
The correspondence file is ar
3.5.

 **Activity Overview Fe**
An excel file listing all the act
(geography, ISIC classification
elementary and intermediate

 **Activity Overview Fe**
An excel file listing all the act
Allocation at the point of sub

 **Activity Overview Fe**
An excel file listing all the act
long-term system model.

 **Activity Overview Fe**
An excel file listing all the act



HOME

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Introduction to ecoinvent
version 3.4 - 13&14 Nov
580 views • 9 months ago

Ecoinvent 3

Forum

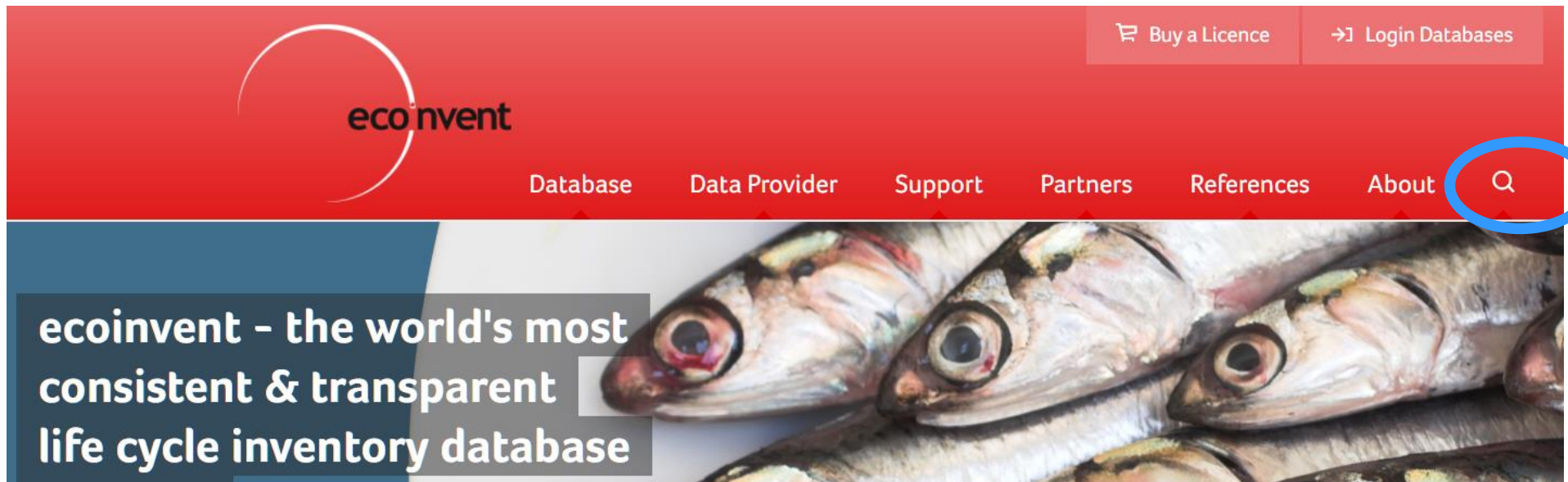
general discussion (54)

ecoinvent v3 in LCA soft

LCIA (26)

Enhance the use of our webpage!

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- 'Database' section
- 'Support' section
- 'Search' function: to find what you need

Search

Enter the search term you are looking for and choose to sort your search results according to file type afterwards.

Results for: "APOS"

File Types:

→ All

☒ PDF

☐ Excel

What is allocation at the point of substitution (APOS)? – ecoinvent

Allocation at the point of Substitution (APOS) is an allocation approach that uses expansion of product systems to avoid allocating within treatment systems.

→ <http://www.ecoinvent.org/support/faqs/methodology-of-ecoinvent-3/what-is-allocation-at-the-point-of-substitution-apos.ht...>

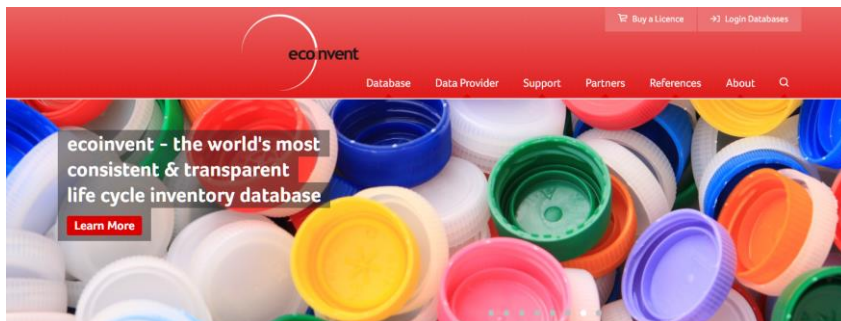
Allocation at the Point of Substitution – ecoinvent

The APOS system model was previously called "Allocation, ecoinvent default". The name was changed with the release of ecoinvent

Content of this presentation

Guided tour to ecoinvent functionalities

- Webpage: search & use of the materials provided



ecoinvent version 3.5

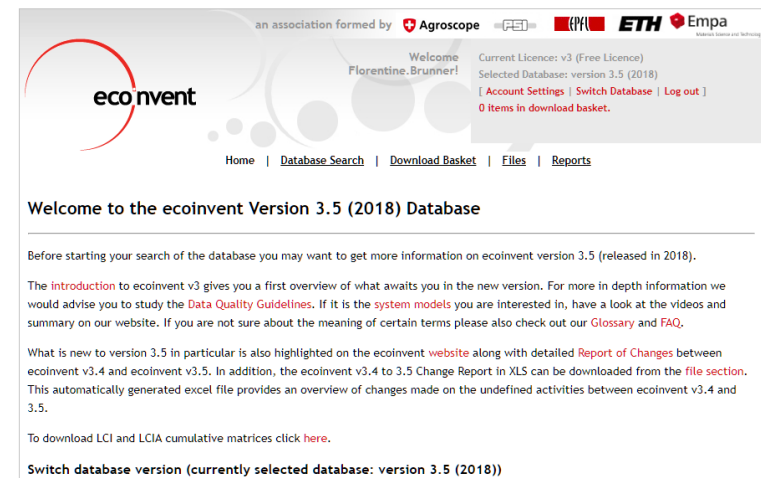
With Version 3.5 over 2'000 datasets on aquaculture and fish capture, waste treatment, aluminium, hard coal, pulp and containerboard were added and updated. Hundreds of regional and global supply chains were revised.

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Latest News August 23, 2018: ecoinvent version 3.5 is available!

We are happy to announce the release of the fifth update of ecoinvent version 3. Read more [→ about version 3.5](#), [→ log in](#) or [→ register](#) to access the new data.

- ecoQuery: functionalities and navigation



Enter the ecoQuery

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Database

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References

About




**ecoinvent - the world's most
consistent & transparent
life cycle inventory database**

- Why?
 - ↓ LCA software tools do not always support all available information
 - ↓ Datasets: exchange properties, comments, formulas
 - ↓ Reports: specific to sectorial data, tools etc.

Log in to v3 or to older versions

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Login Databases

Login Version 3

Username

Password

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ecoinvent is proud to have released version 3.0 of the ecoinvent database, the third major release in our long history, in May 2013. Four years later, in October 2017, the fourth higher version 3.4 was released. ecoinvent version 3 builds on all previous versions of the database.

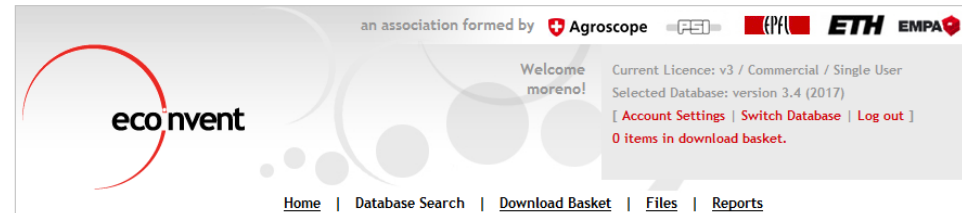
Login Version 1+2


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Password

Login

Use the simple search



Search in Activity Name, Reference Product Names and Synonyms 

System Model

☒ Undefined

These are the unlinked, multi-product activity datasets that form the basis for all the other system models. This is the way the datasets are obtained and entered by the data providers. These activity datasets are useful for investigating the environmental impacts of a specific activity (gate-to-gate), without regard to its upstream or downstream impacts.

☐ Allocation, cut-off by classification

☐ Allocation at the point of substitution

☐ Substitution, consequential, long-term

Switch to Advanced Search



Use the Advanced Search

Product Name:

Activity Name:



Location:

Activity Type:

ISIC4 Group:

System Model:
Undefined
Allocation, cut-off
Allocation, APOS
Consequential

Filter:

#		Name	Reference Product	Loc.	Time Period	Synonyms	View
1	<input type="checkbox"/>	anaerobic digestion of manure	biogas [m3]	CH	01.01.2009 - 31.12.2009		PDF UPR 
2	<input type="checkbox"/>	anaerobic digestion of manure	biogas [m3]	GLO	01.01.2009 - 31.12.2009		PDF UPR 

Show entries Showing 1 to 2 of 2 entries

☐ Select/ Unselect all

Datasets in your browser or as PDF reports

- system models:
access to the linked
Unit Processes, LCI
and LCIA.
- PDF reports

Product Name:

Activity Name:

Location:

Activity Type:

ISIC4 Group:

System Model:

Undefined
Allocation, cut-off
Allocation, APOS
Consequential


Filter:

#		Name	Reference Product	Loc.	Time Period	Synonyms	View
1	<input type="checkbox"/>	anaerobic digestion of manure	biogas [m3]	CH	01.01.2009 - 31.12.2017		PDF UPR LCI LCIA
2	<input type="checkbox"/>	anaerobic digestion of manure	biogas [m3]	RoW	01.01.2009 - 31.12.2017		UPR LCI LCIA

Show 10 entries Showing 1 to 2 of 2 entries

☐ Select/ Unselect all Add selected items to basket

Dataset PDF reports



Ecoinvent 3.5 dataset documentation

corrugated board box production - RER

Dataset identification

Activity name	corrugated board box production
geography	RER (Europe)
Time period	2009-01-01 to 2015-12-31 Valid for the entire period
Synonym	None
ISIC rev.4 ecoinvent	1702: Manufacture of corrugated paper and paperboard and of containers of paper or plastic
Reference product	corrugated board box
CPC classification	32153: Cartons, boxes, cases, record sleeves and other packing containers (except bags) of paper, paperboard, cellulose...
Dataset type	Ordinary transforming activity
Technology level	Current
Version - system model	3.5 - Undefined

Table of content

- [Exchange summary](#)
- [Dataset description](#)
- [Detailed information](#)
- [Sources](#)

Notes: This document contains information about the properties of the dataset, e.g. through relations, parameters, and authors and reviewers. Amount and identity of undefined dataset are choices in by the different dataset are available in the dataset.

[Link to the dataset on the ecoinvent website](#)

Dataset authorship

Role	Name, organisation
Data generator	Angeline de Beaufort, De Beaufort-Langeveld
Data entry	Angeline de Beaufort, De Beaufort-Langeveld
Review	Emilia Moreno Ruiz, ecoinvent Centre
Review	Caroline Gaudreault, National Council for Air & Stream Improvement
Review	Tereza Levova, ecoinvent Centre

Exchange summary

[Back to table of content](#)

Reference products	Material for treatment	Byproduct classif.
corrugated board box	no	allocatable product
By-products	Material for treatment	Byproduct classif.
residual softwood, wet	no	allocatable product
sludge from pulp and paper production	yes	Waste
waste mineral oil	yes	Waste
waste paint	yes	Waste
waste paperboard, sorted	no	Recyclable
Inputs from technosphere		
acrylic varnish, without water, in 87.5% solution state		
borax, anhydrous, powder		
containerboard, fluting medium		
containerboard, linerboard		
diesel, low-sulfur		
electricity, medium voltage		
ethylene vinyl acetate copolymer		
heavy fuel oil		
light fuel oil		

Dataset description

[Back to table of content](#)

General comments

Corrugated Board Box
Fluting Medium
Linerboard are represented by three ones representing

Included activities

The process starts with the Fluting Medium paper its fluted surface is glued to the fluted surface along the machine direction. The corrugated board is then cut into corrugated board or palletised.

Included activities

The final stage is the manufacture of the

Sampling procedure

Data were collected from a board production site (the same site) in Austria, Italy, Lithuania, Switzerland and Sweden which is 40% of the average 2015 EFECO. 2015 thanhttp://www.efeco.org

Extrapolations

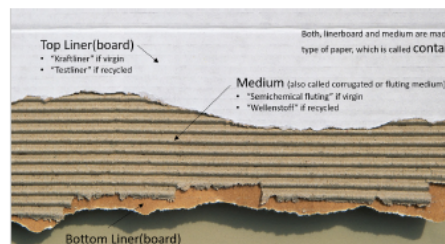
Additional air emissions from the ecoinvent dataset for 1MW, Europe without Switzerland and Switzerland data. Switzerland data is not available. Switzerland data is not available. Technology code is not available. Average of process

page 1

Dataset description

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General comments



Corrugated Board is manufactured from several specially conditioned layers of recycled or virgin paper. The middle layer, called Fluting Medium, is fed into a machine which is called a Corrugator (FEFCO, 2015). In integrated mills, the finished board is further folded into boxes.

Included activities start

The process starts as reels of Fluting Medium and Linerboard are fed into a machine called a Corrugator. The Fluting Medium is conditioned with heat and steam and fed between large corrugated paper rolls. The single facer is applied to the tips of the flutes on one side of the fluting. The corrugated fluting medium with liner attached to it is called single facer. The single facer web meets the double backer where the single face web meets the double backer. A number of layers of single facer web may be built up to produce a multi-layered corrugated board. The corrugated board is slit into the required widths and cut into sheets or palletised.

Included activities ends

The final stage of the process consists of printing and then slotting, folding and gluing the sheets to manufacture a corrugated box.

Sampling procedure

Data were collected from the producers by FEFCO and checked by technical experts. The board production are based on 224 integrated plants (i.e. corrugated board production and same site) in Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Italy, Lithuania, the Netherlands, Norway, Poland, Portugal, Romania, Russia, Slovakia, Switzerland and the United Kingdom. Together they produce 9.400.000 tonnes net sales, which is 40% of the total annual production of corrugated board in Europe. Each of the production average 42.300 tonnes of corrugated sheets, ranging from 25.000 - 500.000 tonnes. FEFCO, 2015. European Database for Corrugated Board Life Cycle Study. <http://www.fefco.org/sites/default/files/ica-report-2015.pdf> larger than, accessed 08.02.2016

Extrapolations

Additional air emissions from the combustion of fossil fuels estimated based on industrial data from the ecoinvent database and matched as follows: light fuel oil: heat production, light fuel oil 1MW, Europe without Switzerland; heavy fuel oil: heat production, heavy fuel oil, at industrial without Switzerland; hard coal: heat production, at hard coal industrial furnace 1-10MW, Switzerland; natural gas: heat production, natural gas, at industrial furnace larger than 10MW, Switzerland; lignite briquettes and peat: heat production, lignite briquette, at stove 5-15kW, Switzerland; wood chips: heat production, wood chips from industry, at furnace 1000kW, CH.

Technology comments

Average of present used technology.





Detailed information for exchanges

[Back to table of content](#)

Reference product	Annual prod.vol.	Amount
corrugated board box	2.23e+10 kg	1.00e+3 kg
Production volume comment: Reported as total shipments of corrugated board in Europe in 2015 by FEFCO (2015). Reference(s): FEFCO, 2015, Annual Statistics 2015, accessible online at http://www.fefco.org/sites/default/files/documents/Fefco_AnnualEvaluation_2015.pdf , last accessed 08.02.2018 Source: FEFCO Corrugated Packaging 2015		
By-products	Annual prod.vol.	Amount
residual softwood, wet	2.70e+3 m3	0.000121 m3
Comment: Reported as for residues/bark, wood. Assumed all softwood, which represents 85% of wood input (by weight). Density based on assumed water content on a dry mass basis of 70%. Production volume comment: Calculated from production volume of reference flow. Uncertainty distribution: lognormal; GSD2: 1.11; Pedigree matrix: [3, 3, 1, 1, 3] Uncertainty comment: Uncertainty accounts for both the uncertainty associated with the waste mass value reported by FEFCO and the density value used to convert the exchange value to a volume basis. Source: FEFCO Corrugated Packaging 2015		
sludge from pulp and paper production	1.06e+7 kg	0.476 kg
Comment: Reported as residue, inorganic sludges (0.48 kg). Production volume comment: Calculated from production volume of reference product using the relative outputs. Uncertainty distribution: lognormal; GSD2: 1.04; Pedigree matrix: [1, 3, 1, 1, 1] Uncertainty comment: Source: FEFCO Corrugated Packaging 2015		
waste mineral oil	6.04e+5 kg	0.0271 kg
Comment: Reported as "Residues, Lubricants and oil". Production volume comment: Calculated from production volume of reference product using the relative outputs. Uncertainty distribution: lognormal; GSD2: 1.04; Pedigree matrix: [1, 3, 1, 1, 1] Uncertainty comment: Source: FEFCO Corrugated Packaging 2015		
waste paint	1.02e+7 kg	0.46 kg
Comment: Proxy for "Ink residues". Production volume comment: Calculated from production volume of reference product using the relative outputs. Uncertainty distribution: lognormal; GSD2: 1.04; Pedigree matrix: [1, 3, 1, 1, 1] Uncertainty comment: Source: FEFCO Corrugated Packaging 2015		
waste paperboard, sorted	2.23e+9 kg	100 kg
Comment: Reported as paper for recycling. Production volume comment: Calculated from production volume of reference product using the relative outputs. Uncertainty distribution: lognormal; GSD2: 1.04; Pedigree matrix: [1, 3, 1, 1, 1] Uncertainty comment: Source: FEFCO Corrugated Packaging 2015		
Inputs from technosphere		Amount
acrylic varnish, without water, in 87.5% solution state		0.48 kg
Comment: FEFCO 2015. Uncertainty distribution: lognormal; GSD2: 1.04; Pedigree matrix: [1, 3, 1, 1, 1] Uncertainty comment: Source: FEFCO Corrugated Packaging 2015		

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Materials Science and Technology

Welcome Florentine.Brunner!

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Name

ecoinvent 3.5 (2018), current

LCI and LCIA results - cut-off system model

- ecoinvent 3.5_cutoff_ecoSpold02.7z
- ecoinvent 3.5_cutoff_lci_ecoSpold02.7z
- ecoinvent 3.5_cutoff_lcia_ecoSpold02.7z
- ecoinvent 3.5_cutoff_lcia-cumulated-matrices_xls.7z
- ecoinvent 3.5_cutoff_lci-cumulated-matrices_xls.7z

LCI and LCIA results - consequential system model

- ecoinvent 3.5_consequential_ecoSpold02.7z
- ecoinvent 3.5_consequential_lci_ecoSpold02.7z

Name

- ecoinvent 2.2 translated reports_06_Energy Systems.zip
- ecoinvent 3 report_Agriculture.7z
- ecoinvent 3 report_electricity India.pdf
- ecoinvent 3 report_Refrigerated Transport.pdf
- ecoinvent 3 report_selected chapters_Energy.zip
- ecoinvent 3 report_Transport Default Model_Global.pdf
- ecoinvent 3 report_Transport Default Model_Switzerland.zip
- ecoinvent 3.3 open access datasets_PDF documentation.zip
- ecoinvent 3.4 open access datasets_PDF documentation.zip
- electricity_market_composition_v3.4.xlsx
- market_composition_3.5.xlsx

Thank you for listening!

Florentine Brunner

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